



Congressional Budget Office

CBO's Cost Estimates

Presentation for the:

Seminar on Independent Budget Analysis & Transparency

A Global Network of Parliamentary Budget Offices Community Meeting

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June 2014

Basics of CBO's Cost Estimates

Facts About CBO'S Cost Estimates

A CBO cost estimate shows changes in spending and revenues by year for up to 10 years.

CBO staff usually prepare between 500 and 600 formal cost estimates a year:

- Most estimates are done when a bill is approved by a committee
- Estimates vary from 1 page to 10 pages or more
- All estimates are posted on CBO's website (www.cbo.gov)

CBO staff also prepare thousands of informal estimates each year to assist committees during the process of drafting legislation or considering amendments.

CBO's Current-Law Baseline

Each winter CBO prepares 10-year projections for each program that:

- Reflect CBO's most recent economic forecast,
- Are the starting point for a year of official scorekeeping, and
- Serve as a **neutral benchmark** so that policymakers can evaluate what budgetary changes would occur from enacting a given proposal.

CBO's cost estimates show how much revenues and mandatory spending (such as for entitlements) would change **relative to** that benchmark.

Process for Developing Cost Estimates

Research

- Obtain timely and balanced information to guide analysis (we use data from various sources, and expert input)

Analysis

- Carefully review legislation to assess how it would change current law, including the types of budgetary effects
- Determine key factors that affect budgetary outcomes
- Quantify the estimated impact on the federal budget

Communication

- Write a clear explanation of the estimate and key components of its basis; but CBO makes no recommendations regarding policy choices.

A Typical Cost Estimate Has A...

Summary, highlighting major provisions and costs

Estimate section, containing a table showing effects by budgetary category

Basis of Estimate, highlighting key data, assumptions, and components of the estimates

How CBO Does Its Analysis

Resources Used for Cost Estimates

Data, information, and judgments from knowledgeable people in **federal, state, or local agencies** (building relationships over time is important)

Data, information, and judgments from **other people who are knowledgeable about the topic and represent various viewpoints** (think tanks, academic institutions, interest groups, etc.)

Historical data and experience for programs or activities

Spreadsheet and simulation models

Some of the government data and information is **publicly available**; some is provided specifically **at CBO's request**. CBO also **purchases data** collected or tabulated by private sources.

Construction and Review of Models

Inputs

Reviews of research literature

Historical data from federal programs and states

Original research using administrative records and survey data

Analysis by the staff of the Joint Committee on Taxation

Brainstorming

Extensive internal review

External Communications

Research organizations

Government agencies (federal, state, and local)

Private-sector organizations and associations

Subject matter experts (in academia, private sector, and government)

CBO's Panels of Economic Advisers and Health Advisers

Quantifying the Estimated Impact

CBO develops **point estimates**, which are necessary for the enforcement of budget rules during Congressional deliberation.

CBO's point estimates reflect the **midpoint in the range of possible outcomes** we deem most probable—generally such that the chances of being too high or too low are about the same.

Examples of CBO's Cost Estimates

Estimating the Cost of Emergency Unemployment Benefits

Legislation

Would **make additional payments to qualified individuals** who continue to be unemployed and who have exhausted regular benefits (up to 26 weeks); the potential duration of the new benefit in each state depends on the unemployment rate in that state.

Analysis

CBO's baseline shows projected caseload for regular unemployment benefits based on the agency's economic forecast for labor force and unemployment rates, and recent per capita benefits, adjusted for inflation for future years.

Estimating the Cost of Emergency Unemployment Benefits (Cont.)

The Department of Labor provides data on the recent **number of claims and exhaustion rates** of the regular benefits, and the **average weekly benefit**.

CBO applies recent exhaustion rates for regular benefits to its baseline projections of future caseloads, adjusting for attrition from people leaving the program and for projected changes in economic conditions.

The duration of emergency benefits, which would vary from state to state, is estimated based on the typical variation of state unemployment rates from the national average.

Estimated Cost = people x dollars x duration

Estimating the Cost of the Farm Bill

Legislation

Would amend and extend a number of major programs providing support to farmers, as well as assistance through food, nutrition, and other programs.

Analysis

CBO projects government spending under current law (baseline) for each type of crop based on historical trends, recent market developments, and historical relationships between supply, demand, and price (usually determined by regression and other statistical analysis).

Estimating the Cost of the Farm Bill (Cont.)

CBO's spreadsheet models for crops:

- Use information collected at the national level by numerous government agencies, including demand, supply, and prices for each crop
- Incorporate government policies, such as support prices, program rules, and legal precedents
- Utilize information on individual program spending by crop and by timing of payments
- Reflect input from a panel of expert advisers

CBO applies proposed changes in program rules to baseline production and price forecasts, projecting changes in behavior using the results of regressions applied to the results of similar, previous changes.

CBO accounts for variability (particularly because of weather) using probability distributions for prices and crop yields based on past experience.

Estimating the Cost of Oil Royalty Relief

Some proposals involve contingencies that make estimating more complicated. Such proposals could have costs if certain conditions are met, but would not appear to have a cost if we followed a strict point estimate.

Example: If oil prices drop below a specified threshold (\$X/barrel), companies stop paying royalties on oil produced.

Our **estimate** considers:

- What is the probability distribution around our baseline assumptions of what oil prices will be (under current law)?
- What is the likelihood that oil prices will fall below the dollars-per-barrel threshold and trigger royalty relief?

Estimating the Cost of Health Care Legislation

Legislation

Would establish a mandate for nearly all legal residents of the United States to obtain health insurance

Create new insurance marketplaces

Provide insurance subsidies for low-income people

Expand eligibility for Medicaid (health cost assistance for the poor)

Impose certain new taxes

Make other changes to taxes and health care programs

Estimating the Cost of Health Care Legislation (Cont.)

Analysis

CBO's health insurance simulation model projects the effects of proposals on health insurance coverage and the federal budget based on a simulation sample of just under 100,000 observations.

Uses various sources of data on the U.S. population, including:

- Demographic data,
- Income tax information, and
- A survey of individual health care spending

CBO's Approach in Estimating Employers' Responses

Groups people into firms and projects how individuals and firms will react to changing incentives to purchase health insurance.

- Behavioral assumptions derived from the economics literature—for example, the sensitivity of employers' decisions to offer health insurance (to their workers).

Elasticities, over a range of smaller price changes, based on literature

- Larger response to policies that would more generously subsidize many workers
- Captures how some firms do not respond immediately to new price incentives

Estimating the Cost of Health Care Legislation

Effects on the federal budget for the first 10 years and beyond the 10-year window

Number of people with health insurance

Effects on private health insurance premiums

Effects on the share of costs paid by enrollees at different income levels

Effects on prices of prescription drugs

Effects on labor markets

Effects on different types of providers

Summing Up ...

Cost estimating is fundamentally a three-stage process of research, analysis, and communication.

Regardless of how good the analysis is, to be effective, the communication of cost estimate results must be clear.

There is no single approach that works in all cases: the best analytical methodology to use in a given case depends on the problem being addressed, available data, and available time.

It is good to be humble! Cost-estimators need to recognize they will often be wrong ... and that there is almost always something to learn to improve future estimates.